

Overhauling a Crosman 160 Part 2

Right back into the action...



The smashed flat transfer port o-ring needed a dental pick for removal.



Banged the end of the gas tube on the bench and the valve slid out.



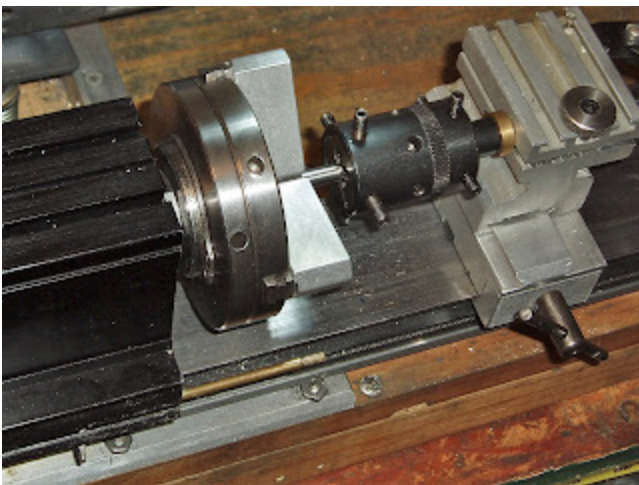
Had to tap the plug out with a dowel rod.



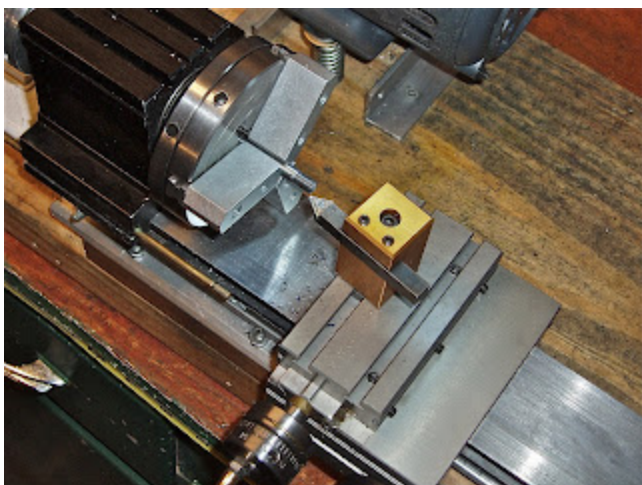
Here's the stud I dislike so much. I wasn't going to countersink the fastener--then I was--now I'm not--for now. I've got another project coming in that is somewhat time sensitive (self-imposed) so I've got to get this gun finished.



In the mean time, I will make a duplicate stud as I don't want to re-use the thread damaged original. A piece of 0.250" drill rod was hacksawed to length.



Cleaned up the ends and used the Taig tailstock die holder to start 1/4"-28 threads on each end.



Finished the threading by hand with a proper die holder and the piece in the vise, then back to the Taig lathe to face the ends down to a final length of 1.885".



I'll blue this later to match.



Took the cover plate off the trigger. Nothing was wrong with it, but since I was this far into the gun, it made sense to check everything.



A few pics for parts orientation so I can reassemble it later.



Top set screw handles sear engagement, middle is the trigger stop and bottom is weight of pull.



The sear is potentially the only trigger component that can give you trouble on reassembly.



The spring, the two small pins, and the sear's three contact points could be a bit confusing.



So I took a few more pics--especially of the spring orientation.



And just like that, the battered trigger housing was stripped and repainted as I began its reassembly.



Once the sear was installed correctly, the rest of the parts drop right in. Used Buzzy's Slick Honey on all the metal to metal contact points. I also polished all the contact points.



Side plate reattached and set the trigger unit aside for later.



Here's how the valve tool interfaces on the valve face inside the gas tube.



As the face of the valve is tightened, the o-ring in the middle of the valve body expands outward sealing the tube. (The rear of the valve is anchored in the tube so it can't rotate as the front is tightened.) The strip of steel for the tool measures 0.131" thick, 0.736" wide and 8" OAL. If you have something close, it'll work, though it may take a couple minutes with a file.



It's sometimes necessary to clamp half of the valve in rubber or aluminum vise jaws and unscrew with a strap wrench.



But this time it came apart by hand. The o-ring is rock hard. It's got 90 degree edges. Toast.



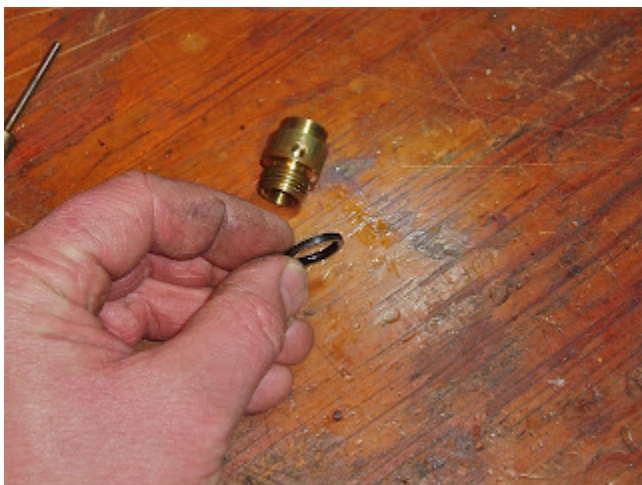
Disassembled. Pretty straightforward Crosman valve stuff.



There's a felt ring, a brass screen, steel washer, spring, piercing needle and the valve stem.



Had to crack the old o-ring to get it off.



You'd swear this is a plastic ring.



A couple new valve body seals next to the old one.



Actually had a new valve stem on hand. I think Bryan & Associates, Precision Pellet, JG Airguns, Mac1, Archer Airguns and several other places sell rebuild kits. Use the Google to track them down. The red stuff on the seal is Crosman Pellgun oil.



I'll try this o-ring. The valve is loosely threaded together. Gets tightened once it's inside the gas tube.



Pushed the valve into the tube from the front.



Used a transfer punch to align the threaded hole for the securing bolt.



Like so.





Tightened the rear of the valve in place.



Then snugged down the valve inside the tube.



Installed a bulk-fill cap. At this point, the entire gas tube is now sealed and can be pressure checked for leaks.



A small 3.5 oz tank with the B&A adapter.



Just a tiny bit of CO₂ gas before reassembly.



Tapping the valve stem with a dowel rod will crack open the valve and vent CO₂ through the transfer port. I'll leave it pressurized overnight.

More soon.